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CARIBBEAN ENVIRONMENTAL PROTECTION DIVISION
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09 OCT 2014

SENT VIA ELECTRONIC TRANSMITTAL

Attorney General César Miranda
Office of the Attorney General
Commonwealth of Puerto Rico
Department of Justice
P.O. Box 9020192
San Juan, Puerto Rico 00902-0192

Ref: **FOIA Request No. EPA-R2-2014-010567**
Commonwealth Oil Refining Company

Dear Attorney General Miranda:

The purpose of this letter is to provide information on the corrective action activities conducted at the Commonwealth Oil Refining Company ("CORCO") facility in the municipality of Peñuelas, Puerto Rico (the "Facility"), as requested in your letter dated September 5, 2014.

The Facility was a large petroleum refinery which supplied refined feedstock to an adjacent petrochemical manufacturing complex. CORCO started operations at the Facility in 1955. The Facility is located in an 800-acre site, and consists of numerous storage tanks and waste treatment units, typical of petroleum refineries. The Facility has been inactive as a refinery since 1982 and currently functions as a terminal for marine transportation and land-based storage of crude oil and petroleum products. Current operations include marine loading docks, a tank farm, and tank truck loading facilities. Products are brought into the Facility through the deep water docks, pumped into tanks for storage, and subsequently are distributed to retailers via ship s or trucks. The Facility's former refinery units are intended for eventual demolition.

Prior to termination of the refinery activities, several petroleum products were manufactured at the Facility. Historically, the Facility's tanks have been used to store a number of products including crude oil, intermediate and finished petroleum products such as gasoline, diesel, No. 6 fuel oil, kerosene, naphthalene, aviation fuel and sulfuric acid. Currently, the tank farm is used for storage of petroleum products including unleaded gasoline, diesel, No. 6 fuel oil, waste oil and fuel additives.

Petroleum products were accidentally released into the environment at the Facility during historical petroleum refining, storage and transfer activities. Free-phase hydrocarbons were first identified in groundwater monitoring wells during the Environmental Impact Study

Investigation for the Modular Incineration System ("MIS") Area conducted by Roy F. Weston in 1989. In June 1990, CORCO entered into a court approved settlement agreement with the U.S. Environmental Protection Agency ("EPA") pursuant to the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6901 et seq. (the "1990 Agreement"), to address the release of petroleum product into the environment. The agreement required submittal of closure plans for seven regulated units and a work plan for a soil/groundwater investigation (to define the source and the plume of subsurface free-phase hydrocarbons). The implementation of this agreement did not happen until November 1993, due to CORCO's financial difficulties and its challenges to EPA's regulatory authority.

From 1993 to 1999, CORCO conducted a number of investigations associated with the closure plans for the regulated units and the soil/groundwater work plan. A Phase I Subsurface Oil investigation was conducted in 1994 which included the installation of 32 wells at various locations throughout the Facility. A Phase II subsurface Oil Investigation was conducted in 1995, which included the installation of seven additional delineation and five pump test wells. After 1995, additional wells have been installed during various investigations and have been incorporated into the overall free-phase hydrocarbon monitoring program.

The results of all investigations indicate that the major source of contamination at the facility is the subsurface plume of free-phase hydrocarbons and petroleum products (undissolved phase) with associated contaminated groundwater (dissolved phase). Key contaminants within the petroleum are benzene, toluene, ethyl-benzene, xylene (i.e., BTEX), and naphthalene. There are also five surface impoundments that are required to be closed. It is important to mention that due to the relatively high content of salt, the groundwater in the area is not considered a drinking water source.

Free-phase hydrocarbon recovery operations began in the MIS Area on November 8, 1994 and have continued to the present day at various locations throughout the Facility. From October 1999 through September 2002, ten existing monitoring wells were converted to extraction wells that comprised the free-phase hydrocarbons recovery system. Since the latter part of 2003, the free-phase hydrocarbons recovery system has been enhanced by utilizing a mobile vacuum truck to extract free-phase hydrocarbons from additional wells located in the Facility, south of route 127.

Since February 2000, all monitoring wells at the Facility have been gauged monthly to monitor the effectiveness of the free-phase hydrocarbons recovery system. As these data indicate, free-phase hydrocarbons have been and continue to be present on the groundwater beneath the main area of the Facility, including the product storage tank farm and former refinery units. However, the data also demonstrates that the recovery system has been effective in reducing the free-phase hydrocarbons' thickness in many areas of the Facility. As of December 2012, recovery operations had removed more than seven million gallons of free-phase hydrocarbons.

Currently the Facility's seven regulated units for the management of hazardous waste are

not in operation. As part of the 1990 Agreement, CORCO is required to investigate hazardous waste remaining in these units, determine whether there has been any release of hazardous waste constituents into the environment, and close these units by insuring that the environment is adequately protected from exposure to any of their hazardous constituents. These units contain the following hazardous constituents: fluorene, pyrene, hexachlorodibenzodioxin, arsenic, barium, cadmium, chromium, nickel, and zinc.

In 1999, CORCO prepared and submitted to EPA plans for the closure of the seven units in accordance with RCRA. The plans included revisions of water/wastewater treatment alternatives including possible reactivation of the units and construction of a new separate wastewater treatment facility. In March 2000, EPA requested CORCO to either submit a notification of intent to implement the previous closure plans or to submit an alternative plan by May of 2000. In May 2000, CORCO submitted a revised RCRA Units Closure Plan to EPA and in December 2001, CORCO submitted an addendum to this plan. In March 2004, EPA provided partial comments to the RCRA Units Closure Plan addressing two of the seven units, specifically Tanks 1008 and 1030, and authorized CORCO to proceed with their closure. Accordingly, in January 2005, CORCO prepared and submitted a closure plan for these tanks which was approved by EPA in September 2006. Since the approval, CORCO has removed all materials from Tanks 1008 and 1030 and has closed these tanks in accordance with the EPA approved closure work plan. In June 2011, CORCO submitted the final closure report to EPA.

In August 2006, EPA requested CORCO to perform characterization sampling of the Facility's eastern and western lagoons for the determination of hazardous waste characteristics. A Characterization Sampling Work Plan for such lagoons was submitted in September 2006 and approved by EPA later during that same month. The results of this sampling confirmed that these lagoons did not contain characteristic hazardous waste. In October 2, 2006, EPA sent a letter to CORCO requesting the preparation of a RCRA Facility Investigation ("RFI") Work Plan to determine the nature and extent of soil contamination in several areas of concerns.

In July 2007, CORCO submitted to EPA a Draft RFI Work Plan for review. In the RFI Work Plan, CORCO identified nine Areas of Concern (AOCs) where it planned to determine the nature and extent of soil contamination. The nine identified AOCs are the CORCO Main Area, the Western Lagoons, Flores Peninsula, Eastern Lagoon, Area North of CPI. No. 2, Pipelines and Pump Stations, CIC tanks, Oxochem Inc. property, and the Caribe Isoprene Corp. property.[1] In March 2014, EPA approved the Final RFI Work Plan.

The initial phase of the RFI will consist of soil sampling along the Tallaboa pipeline, the Tallaboa River sediment (part of the Facility's pipelines and pump stations covered under the AOC) and the Caribe Isoprene and Oxochem properties. For the latter properties, CORCO must demolish and dismantle all structures before conducting the soil sampling. In May 2014, EPA performed a visit to these two properties to conduct a field technical evaluation. On July 31, 2014, the RFI field activities began. EPA participated by overseeing the selection of sampling locations along the Tallaboa pipeline. The soil

[1] The Oxochem Inc. and the Caribe Isoprene Corporation were former CORCO joint ventures.

sampling along the pipeline was completed on August 30, 2014. The sediment sampling event for the Tallaboa River was conducted during the week of September 22, 2014.

As of today, the project is on schedule as per the approved RFI Work Plan. If you need more information about this case, please do not hesitate to contact me at 787-977-5815 or via email at font.jose@epa.gov.

Sincerely,

Jose C. Font
Director
Caribbean Environmental Protection Division
U.S. EPA- Region 2